DOCUMENT RESUME

ED 344 462 FL 020 162

AUTHOR Riney, Tim
TITLE Syllable Structure and Interlanguage Phonology.
PUB DATE 89
NOTE 9p.; In: Kansas Working Papers in Linguistics, Volume 14, Number 1; see FL 020 157.
PUB TYPE Viewpoints (Opinion/Position Papers, Essays, etc.) (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Interlanguage; *Language Research; *Linguistic Theory; *Phonology; *Research Methodology; Second Languages; *Syllables

ABSTRACT

Research assumptions and procedures of two studies of interlanguage (IL) phonology are examined and criticized. In both studies, syllable structure is used as a primary variable, but opposing claims are made about "open" and "closed" IL syllable structure preference. It is argues that: (1) neither IL study considers sufficiently the phonetic structure of the native language and target language; and (2) that syllable structure analyses based on broad categories such as "open" and "closed" are inadequately equipped for insightful IL investigation. It is recommended that in future research, less emphasis be placed on verification of second language learning processes and constraints and more emphasis be placed on reexamining, identifying, and describing the native, target, and interlanguage structures that previous researchers have assumed to be implicated in those processes and constraints. A brief bibliography is included. (Author/MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

S. Manuel-Dupont

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED344462

SYLLABLE STRUCTURE AND INTERLANGUAGE PHONOLOGY

Tim Riney

Abstract: This paper examines several research assumptions and procedures of two recent studies of interlanguage (IL) phonology that use 'syllable structure' as a primary variable, but make opposing claims about 'open' and 'closed' IL syllable structure preference. It is argued that (1) neither IL study sufficiently considers the phonetic structure of the native languages (L1) and target languages (TL), and that (2) syllable structure analyses based on broad categories such as 'open' and 'closed' are inadequately equipped for insightful IL investigation.

The two interlanguage studies to be examined here have appeared in Interlanguage Phonology: The Acquisition of a Second Language Sound System which, according to editors Ioup and Weinberger, reflects 'a resurgence of interest in the phonological aspects of SLA research' (1987:xi). In their introduction to the volume, Ioup and Weinberger state that 'what remains to be made precise in IL phonological research is exactly which developmental processes occur in L2 phonology and why in specific cases transfer is preferred to a L1 learner's simplification strategy' (1987:xiii).

The first study to be examined is Tarone's 'Some Influences on the Syllable Structure of Interlanguage Phonology.' Tarone points out four areas where research in IL phonology is needed: (1) creation of a large data base, (2) investigation of the causes of phonological fossilization, (3) investigation of the processes shaping IL phonology, and (4) investigation of the variability and instability in IL phonology.

I interpret areas (1) and (4) to involve the gathering and interpreting the structure of the data, and areas (2) and (3) to involve how that structure is formed or remains formed (fossilized). If processes are to be identified on the basis of which products or structures they create, then it follows that those structures must first be clearly identified. Addressing areas (1) and (4) is, therefore, prerequisite to addressing areas (2) and (3). One problem involved in addressing areas (1) and (4), however, is that researchers must somehow tabulate the data of the L1, IL, and TL with phonetic categories that can be used to make significant generalizations about IL phonology. It is with this problem in mind that I will now turn to the project of Tarone.

BEST COPY AVAILABLE

FL 020 162

Kansas Working Papers in Linguistics, 1989, Vol. 14, no.1, pp. 97-104.

Tarone describes her project as 'a pilot study' that focuses on IL syllable structure 'in an attempt to determine how it differs from the syllable structure of the TL,' and that 'begins to identify some of the processes which may shape that IL syllable structure.' (Ioup and Weinberger 1987:235) Tarone studies the ILs of two Koreans, two Cantonese, and two Brazilians who are acquiring English. She does not mention subjects' ages at the time of the data collection or at the time of their arrival in the L2 environment. She proposes to investigate evidence of language transfer, reactivation of first language acquisition processes, and universal processes.

Tarone assumes that Cantonese and Brazilian Portuguese are both 'open syllable' or 'CV' languages that share a large proportion of identical segment sequences with English, and that syllable structure errors in English made by speakers of these L1s would be difficult to attribute to anything other than transfer. She also assumes that Korean, on the other hand, is a 'closed syllable language' and, consequently, would provide a good test case for demonstrating syllable structure preference. Her reasoning is that if speakers of a 'closed syllable L1' produce an 'open syllable IL' for a 'closed syllable TL' then they would be demonstrating a 'universal preference' for open syllables.

Given her assumptions about open and closed L1 and L2 syllable structures, Tarone uses her findings to support her claim that there exists a universal open syllable preference, a claim that I intuitively agree with on the basis of a large number of informal observations subjects involving a wide variety of L1 and L2 groups. In the way of improving future IL research design, however, I would like to make several observations about Tarone's study.

Tarone's interpretation of the L1 and L2 structures: For her project, Tarone uses Korean as an example of a 'closed-syllable language' -- although she acknowledges that it is generally considered to be an 'open' syllable language. In fact, in Korean, only seven [+cons] segments may be pronounced in coda final position (Encyclopedia Britannica 1981, s.v. Korean language) as opposed to 20 or more which may occur in the major dialects of English. Although Tarone calls her study a 'pilot study,' and seems to qualify her assumptions (e.g., Ioup and Weinberger 1987:241), Sato interprets Tarone to have reported 'clear evidence' (Ioup and Weinberger 1987:250, and discussed below) of open syllable preference.

In describing the L1 and the L2, Tarone follows the convention of defining 'open' and 'closed' syllable structure only in terms of [+/-cons]. According to Tarone, 'Cantonese and Portuguese are both considered to be more or less open-syllable

languages' with 'most syllables being of a consonant-vowel, or CV, variety; and Korean 'is also considered to be primarily an open-syllable language.' According to Tarone, however, Korean 'contains a much more complicated syllable structure, especially in its final consonant structure, than either Cantonese or Portuguese,' and a comparison of Korean and English 'shows much more similarity of syllable structure' (Ioup and Weinberger 1987:237). On the basis of this 'similarity' between Korean and English, Tarone assigns Korean to the role of being the 'closed syllable' language in her study.

Tarone describes her interpretation of subjects' errors as follows: 'In many cases it was hard to tell whether an error was the result of language transfer or not' and 'whenever there was any doubt in the investigator's mind about the origins of any particular error, that error was classified as language transfer rather than 'non-transfer'(Ioup and Weinberger 1987:240). She then interprets the majority of errors in syllable structure made by the subjects to be due to the influence of language transfer.

Tarone concludes that 'the dominant process influencing the syllable structure of the interlanguage phonology appeared to be language transfer' and that 'a preference for the open (CV) syllable seemed to operate as a process independent of language transfer in influencing the syllable structure of the interlanguage phonology' (Ioup and Weinberger 1987:243).

Tarone's interpretation of the IL structures: Tarone describes her interpretation and quantification of the IL structures as follows:

> The score noted the number of errors in syllable structure made by each subject. An error in syllable structure was categorized as (1) epenthesis, (2) consonant deletion, and (3) insertion of glottal stops. The score did not include the substitution of one C for another C, or of one V for another V, since such substitutions do not substantially alter the syllable structure. (Ioup and Weinberger 1987:238)

Tarone 's analysis appears to interpret the data only in categories of 'Cs' and 'Vs' where each segment is counted as either present or absent as a 'C' or 'V'. Phonemic identity and phonetic features are ignored. This type of analysis ignores to what extent English segments may be said to be equivalent to Korean segments, although major differences exist. Korean, for example, has three sets of stops -- fortis aspirated, fortis unaspirated, and lenis (Ladefoged 1971).

The other study to be examined here is Sato's 'Phonological Processes in SLA: Another Look at IL Syllable Structure.' In a longitudinal study, Sato describes two Vietnamese boys' (10 and 12 years old) acquisition of English initial and final clusters. Sato summarizes her project and findings as follows:

> Longitudinal data from two Vietnamese learners of English were examined in this study to provide insights into IL syllable structure. As in previous research by Tarone (1980:148), first language emerged as 'the dominant process influencing syllable structure in interlanguage phonology.' Specifically the present study showed that L1 transfer is reflected in Vietnamese English IL as (1) a preference for the closed syllable in the modification of English syllable-final CCs; (2) greater difficulty in the production of final than initial clusters; and (3) negligible use of epenthesis as a syllable modification strategy. These results were interpreted as evidence against the hypothesized universal preference for the CV syllable and the hypothesized prevalence of epenthesis as a syllable modification strategy in IL speech. (Ioup and Weinberger 1987:260)

Sato interprets her findings to be counterevidence to Tarone's 'universal preference for CV syllable' and to Oller's hypothesized prevalence of epenthesis as a syllable modification strategy in IL speech, also reported by Tarone (Ioup and Weinberger 1987). Sato aligns herself with Tarone's finding that 'first language emerged as the dominant process' but opposes Tarone's hypothesized syllable structure preference. These two experiments, which produced conflicting findings, may be outlined as follows:

	L1	IL	TL	Claim
Tarone:	Closed	Open	Closed	Open Preference
Sato:	Closed	Closed	Closed	Closed Preference

I intuitively agree with both Sato and Tarone that L1 transfer must be a major force shaping IL phonological structure, and with Tarone that there may be some inherent 'open syllable preference.' I would like to continue to examine, however, a few assumptions and procedures underlying the interpretations and claims made by these two studies. The remainder of the discussion of Sato is divided into the three parts: (1) the interpretation of the structure of L1, (2) the interpretation of the structure of L2, and (3) the interpretation of the structure of IL.

Sato's interpretation of the structure of L1: In the beginning of her article, Sato describes the Vietnamese L1

BEST COPY AVAILABLE

syllable structure type as 'difficult to determine' and based on 'admittedly limited evidence, it can be tentatively proposed that Vietnamese prefers the closed syllable' (Ioup and Weinberger 1987:251-252). Near the end of the article, however, this interpretation of the L1 Vietnamese syllable structure as closed is used to confirm a project hypothesis:

> It was hypothesized that, because of L1 transfer [of closed syllables], Vietnamese English IL would show a preference for closed rather than open syllables in the modification of English syllable-final (SF) consonant clusters (CCs). This hypothesis was confirmed. (Ioup and Weinberger 1987:260)

In fact, the status of Vietnamese as a closed syllable language is questionable. Both Thompson (1965) and Liem (1970) indicate that Vietnamese syllable structure is best described as CV and open and not CVC and closed. One might argue that if Vietnamese are capable of producing (C)V(C) syllables then the percentages of closed and open syllables are insignificant. The percentages here are significant, however, in that they correspond to a significant fact about Vietnamese coda structure: only eight [+cons] singletons and no clusters are permitted -- as opposed to more than 20 singletons and more than 60 two-segment and three-segment [+cons] clusters permitted as English codas.

On the basis of 'admittedly little evidence' that Vietnamese is a closed syllable language, Sato concluded the following:

> Analysis revealed, for both learners, that modification of syllables containing CCs more frequently yielded closed rather than open syllables. Specifically, it was shown that cluster reduction by one segment was favored over other processes: cluster deletion, vowel epenthesis, and feature change. These results cannot, therefore be viewed as support for the alternative hypothesis of a universal preference for the open syllable. (1987:258)

Even if one accepts Sato's interpretation of the L1 Vietnamese syllable structure as closed, it is not clear why the reduction of a two-segment TL final cluster to a one-segment IL final consonant is evidence against an open syllable preference. One may just as reasonably argue that the cluster which has been reduced from two segments to one segment has been 'half-opened,' and manifests an open syllable preference.

<u>Sato's interpretation of the structure of the L2</u>: Sato speaks of cluster reduction, especially with regard to final clusters, but makes no reference to the fact that reduction is a

common behavior in all dialects of English, including Vernacular Black American English (VBE) which would be spoken among persons 'enrolled in a local public school in a predominantly black community outside Philadelphia' (Ioup and Weinberger 1987:252), where Sato conducted her research.

Some types of cluster reduction are part of the target language, whatever dialect is assumed to be the target dialect. In a project involving 40 subjects, Riney (1987) presents evidence that the English of Vietnamese is distinguished not by having reduced clusters -- but by having certain types of reduced clusters that the TL English does not have. Riney also points out that the Vietnamese subjects whose English is most target-like are not those who have all TL clusters (and other features) complete and intact, but those who reduce their clusters (and modify other features) in ways that most closely characterize the reductions and modifications of native TL English speakers.

Sato's interpretation of the structure of the IL: Riney (1987) also reports that final epenthesis (or 'epithesis') is insignificant among subjects 10 to 12 years old, but that it is widespread among adults who arrived in the L2 environment after the hypothesized critical age period of age 12. This potential for IL variation due to age of arrival in the L2 environment may have been overlooked by Sato when she reported that a 'third major result' of her study was 'the disconfirmation of the hypothesized primacy of vowel epenthesis as a syllable modification process in all ILs' and that 'the virtual absence of epenthesis in the Vietnamese English IL data examined here suggests that this phonological process is strongly influenced by constraints in the first language' (Ioup and Weinberger 1987:259).

In her tabulation of the IL structures, Sato reports that she used four categories for analysis: (1) complete absence of cluster, (2) reduction of a cluster by one segment, (3) reduction of a cluster through vowel epenthesis, and (4) a feature change in one or more members of the cluster. As did Tarone, Sato approached her data primarily in terms of 'Cs' and 'Vs' present or absent and without regard to specific phoneme identity or phonetic features. With regard to her coding of these categories, Sato reported procedures that do not address the fact that deletion patterns may vary between monomorphemic and bimorphemic suffixes, and that unstressed suffixes are deleted more than stressed syllables. Furthermore, Sato does not address the fact that TL forms are not invariably complete forms in native speaker English. For example, Sato's data includes [juzd] for the target of 'used' -- despite the fact that the final /d/ is commonly devoiced or deleted (e.g., in 'used to' as [yustu], and in 'used car' as [yuskar]). It has been widely documented that many TL cluster

modifications and reductions are normal among native speakers (e.g., see Wolfram and Fasold 1974).

Conclusion: I do not know to what extent the two studies examined above may be said to be representative of current research in IL phonology, but their appearance in Ioup and Weinberger (1987) suggests to me that they must be considered by some to be state of the art. Assuming that they are at least representative of the field, I think that the field should be considered in light of the statement reported above by editors Ioup and Weinberger that 'what remains to be made precise in IL phonological research is exactly which developmental processes occur in L2 phonology' (1987:xiii). It appears to me that 'what remains to me made precise' is the IL phonological research itself.

In this paper I have attempted to demonstrate that the opposing claims made by Tarone and Sato about IL processes are of little consequence because they have been made on the basis of too little consideration for the phonetic structures of the languages (L1, IL, and TL) involved. Both researchers described target consonant segments in a manner that ignored phonemic and phonetic detail, and with coding schemas that do not permit others to retrieve the phonetic detail and reexamine the data from a more precise point of view. I would like to discourage future studies from the practice of approaching IL phonology on the basis of contrasting L1 and L2 canonical forms -- and ignoring phoneme identity, phonetic features, and feature distribution and sequence constraints. Furthermore, future IL studies may want to place less emphasis on attempting to verify SLA processes and constraints, and more emphasis on reexamining, identifying and describing the L1, IL, and TL structures that previous researchers have assumed to be implicated in those processes and constraints.

REFERENCES

Encyclopedia Britannica 1981, S.v. Korean Language. Volume 10:528.

Ioup, Georgette and Steven H. Weinberger (ed). 1987. Interlanguage Phonology: The Acquisition of a Second Language Sound System. Cambridge: Newbury House.

Ladefoged, Peter. 1971. Preliminaries to Linguistic Phonetics. Chicago: University of Chicago Press.

BEST COPY AVAILABLE

Liem, N. D. 1970. A Contrastive Phonological Analysis of English and Vietnamese. Series C - No. 8. Pacific Linguistics. Sidney: the Australian National University and A. H. Reed and A. W. Reed.

Riney, Timothy J. The Interlanguage Phonology of Vietnamese English. 1987. Ph.D. Dissertation. Georgetown University.

Sato, C. 1987. Phonological Processes in SLA: Another Look at IL Syllable Structure. In Ioup and Weinberger.

Tarone, E. 1987. Some Influences on the Syllable Structure of Interlanguage Phonology. In Ioup and Weinberger.

Thompson, L. 1965. A Vietnamese Grammar. Seattle, WA: University of Washington Press.

Wolfram, W. and R. Fasold. 1974. The Study of Social Dialects in American English. Englewood Cliffs: Prentice-Hall, Inc.